Vibration Isolation of Computing Device Heat Sink Fans from Attached Fan Shrouds and Heat Sinks

ABSTRACT

A device for use in cooling a microelectronic component in a data processing system with a heat sink and a fan. The device includes means for maintaining the fan in close proximity to the heat sink and in a position relative to the fan for moving air over cooling surfaces of the heat sink and component to vibrationally isolate the fan from the heat sink and reduce the transmission of fan vibration to the heat sink. In one embodiment, the vibration isolation component is also configured to receive the fan and secure the fan in position relative to the heat sink to locate the fan in a predetermined position relative to the heat sink. In another embodiment, the vibration isolation component comprises a compliant gasket defining an opening adapted to receive an active area of the fan to allow air flow generated by the fan to reach the heat sink.